REMARKS

Claims 1-38 are currently active.

The examiner has objected to Claims 7-15 and 25.

The Examiner has rejected Claims 1-5, 16-20, 26 and 33-35 as being anticipated by Gai. Applicant respectfully traverses this rejection.

Referring to Gai, there is disclosed a method and apparatus for defining and implementing high-level quality of service policies and computer networks. Gai teaches that computer networks often include intermediate devices from many different vendors or, even if it from the same vendor, having different hardware architectures or executing different versions of software. Accordingly, these intermediate devices provide many different features and options. With regard to congestion algorithms and techniques, some intermediate devices may only support tail dropping, while others may be selectively configured to provide random early detection. Thus, it is extremely difficult for a networked administrator to configure all of the intermediate devices in accordance with a single, uniform traffic management plan. As a result, network-wide quality of service is generally not available. The focus of the network 300 taught by Gai allows network administrators to apply high-level traffic management policies that attempt to impose a uniform plan, despite the presence of dissimilar intermediate

devices and their networks. See column 9, lines 35-55. Thus, Gai has nothing to do with applicant's claimed invention.

Gai teaches an intermediate device, such as a router 318. The router 318 preferably includes a communication engine 510 that is coupled to a traffic management controller 512. The communication engine 510 is configured to exchange messages with the policy server 322. That is, communication engine 510, like the communication engine 418 at policy server 322, is similarly connected to or includes conventional circuitry for transmitting and receiving messages across the network 300. The traffic management control 512, which includes a policy rule decoder 514, is coupled to several components and mechanisms. In particular, traffic management controller 512 is coupled to a packet/frame classifier 516, a traffic conditioner entity 518, a queue selector/mapping entity 520 and a scheduler 522. The traffic conditioner 518 also includes several sub-components, including one or more metering entities at 524, one or more marker entities 526 and one or more shaper/dropper entities 528. The selector/mapping entity 520 and scheduler 518 operate on the various queues established by router 318 for its ports and/or interfaces, such as queues 530a-530e corresponding to an interface 532.. See column 10, lines 12-35.

As is apparent from the above description, and with reference to figure 5, there is only mentioned a scheduler 522, and no specifics or details are provided about the

scheduler. There is certainly no teaching or suggestion of a scheduler that has a first level generator and a second level generator, as found in Claim 1.

It is the Examiner's contention that a policy translator 410 is a first level generator and a request for comments 1700 is a second level generator of a scheduler, as stated in the Office Action. However, the policy translator 410 is shown to be found in policy server 322 while the scheduler 522 is shown to be in a completely distinct element 318, which is a router. Thus, the policy translator 410 has nothing at all to do with the scheduler found in a totally different device. Furthermore, in regard to request for comments 1700, applicant cannot even find an element 1700 in any of the figures. It appears by its very definition, it is not an element but some type of request, as it is identified. To reiterate, applicant's claimed invention is a scheduler, where the scheduler itself has a first level generator and a second level generator. Applicant has not tried to claim a scheduler in addition to other elements that can be found in an overall network that all together may or may not appear to provide some of the functionality that is provided in applicant's claimed invention.

Specifically, the Examiner refers to column 14, lines 25-30 and 37-50 to support his contention. Referring to this, Gai first teaches that the policy translator 410 examines the high-level policies and corresponding data structures and may perform certain initial processing. For example, the policy translator 410 may identify the actual users and obtain their IP addresses and/or corresponding subnet masks. The policy translator may query

the repository 326 or server 329 to obtain the CEO's name, IP address and IP mask. See column 14, lines 2-18. It is clear that these are not the functions of a scheduler which "identifies the connections . . . to receive service from the server," as found in Claim 1.

Continuing, Gai teaches the policy translator 410 may include a data base that correlates application programs to transport protocol and port number. Many applications, such as the hyper text transport protocol are assigned specific, fixed port numbers, such as port 80, in accordance with request for comments 1700. This information may be stored by the policy translator 410 in a conventional manner. Although request for comments 1700 provides fixed port numbers for hundreds of applications, there are still many applications that do not have predefined, fixed port numbers. See column 14, lines 25-35. Again, referring to the functionality of the request for comments, Gai simply teaches that it provides fixed port numbers for hundreds of applications. Again, this has nothing to do with the function of a scheduler.

Accordingly, it is respectfully submitted by applicant that Gai does not teach "a scheduler for a server comprising: a first level generator . . . a second level generator . . . , said second level generator identifies the connection s. . . to receive service from the server," and Claims 1-5 and 16-20 are patentable over Gai.

In regard to Claims 26 and 33-35, Gai does not in any way teach a scheduler which is hierarchical or a scheduler having a schedule bit map, or a scheduler which maintains active bitmaps. Thus, Claims 26 and 33-35 are patentable over Gai.

The Examiner has rejected Claims 6, 21-24, 27-32, 36-38 as being unpatentable over Gai in view of Lahat. Applicant respectfully traverses this rejection. First, Lahat does not add anything in relevant part to the teachings of Gai to arrive at applicant's invention of Claim 1, from which Claims 6 and 21-24 depend.

Furthermore, applicant cannot find anywhere in the teachings of Gai that there is a zero level generator in the scheduler. In fact, the Examiner cites column 10, lines 35-55 for support of the same in regard to an IRT level. In column 10, lines 35-55, applicant cannot find any mention of an IRT level.

In regard to Claim 27, there is no teaching or suggestion in Gai or Lahat of "a scheduler which schedules when the cells of the connections in the memory are to receive service from the server based on intercell intervals, wherein an intercell interval is how long the server takes to service a cell". Claims 28 and 29 are dependent to Claim 27 and are patentable for the reasons Claim 27 is patentable.

Claim 37 has the limitation of "a scheduler having schedule bitmaps which can contain multiple bits per connection to schedule different types of bandwidth, the scheduler schedules when cells of the connections in the memory are to receive service from the server". There is no teaching or suggestion in Gai or Lahat, alone on combination, of this limitation. Accordingly, Claim 37 is patentable.

Claims 30, 31 and 32 are dependent to parent Claim 1 and are patentable for the reasons Claim 1 is patentable.

Claim 38 has the limitation of "a hierarchical scheduler having levels of hierarchy, the scheduler can enforce rate limiting at each level of the hierarchy, the scheduler schedules when cells of the connections in the memory are to receive service from the server". Gai or Lahat, either alone or in combination, do not teach or suggest this limitation.

It is respectfully submitted that the Examiner must follow the specific limitations of the claim when applying prior art rejections. It is respectfully submitted, and reiterated, that applicant's claimed invention is a scheduler itself which has the scheduler itself with specific limitations. The fact that Gai or Lahat may identify a scheduler, and then have other types of equipment or devices that may be interpreted to carry out some form of functionality that is found inside the claim scheduler of applicant but that are not schedulers or

part of a scheduler, is distinct and separate and does not arrive at applicant's claimed invention.

In view of the foregoing amendments and remarks, it is respectfully requested that the outstanding rejections and objections to this application be reconsidered and withdrawn, and Claims 1-38, now in this application be allowed.

Respectfully submitted,

MEENARACHAGAN VISHNU

By _____
Ansel M. Schwartz, Esquire
Reg. No. 30,587
One Sterling Plaza
201 N. Craig Street
Suite 304
Pittsburgh, PA 15213
(412) 621-9222

Attorney for Applicant

CERTIFICATE OF MAILING

I hereby certify that the correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on 11/24/03

Ansel M. Schwartz
Registration No. 30,587
11/24/03
Date